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**INFORMATION DISCLOSURE  
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of

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**Complete if Known**

Application Number	09/989,913
Filing Date	11/20/2001
First Named Inventor	Theresa M. Buckley
Group Art Unit	1773
Examiner Name	Ramsey E. Zacharia
Attorney Docket Number	046577-0103

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
REZ	A1	5,637,389		Colvin et al	6/10/97	
REZ	A2	5,499,460		Bryant et al	3/19/96	
REZ	A3	5,366,801		Bryant et al	11/22/94	
REZ	A4	5,415,222		Colvin et al	5/16/95	
REZ	A5	5,804,297		Colvin et al	9/8/98	
REZ	A6	6,464,672	B1	Buckley	10/15/02	
REZ	A7	3,674,027		Fleischmajer	7/4/72	
REZ	A8	4,501,025		Kuznetz	2/26/85	
REZ	A9	4,588,400		Ring et al	3/13/86	
REZ	A10	4,921,743		Hansen et al	5/1/90	
REZ	A11	4,936,319		Neubardt	6/26/90	
REZ	A12	4,953,544		Hansen et al	9/4/90	
REZ	A13	5,437,621		Andrews et al	8/1/95	

**FOREIGN PATENT DOCUMENTS**

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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
REZ	A14	J.L.A. Majendie pg. 95 of "Diver Heating" from Equipment for the working diver; symposium proceedings February 24-25, 1970, Columbus, OH	Y

Examiner Signature



Date Considered

7/21/04

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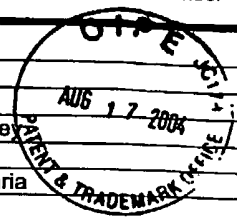
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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		<b>Application Number</b>	09/989,913
Date Submitted: August 17, 2004		<b>Filing Date</b>	11/20/2001
(use as many sheets as necessary)		<b>First Named Inventor</b>	Theresa M. Buckley
Sheet 1 Of 3		<b>Group Art Unit</b>	1773
		<b>Examiner Name</b>	Ramsey E. Zacharia
		<b>Attorney Docket Number</b>	046577-0103



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REZ	D1	4,807,696		Colvin et al.	02-28-1989	
REZ	D2	4,911,232		Colvin et al.	03-27-1990	
REZ	D3	5,141,079		Whitney et al.	08-25-1992	
REZ	D4	5,148,861		Colvin et al.	09-22-1992	
REZ	D5	5,224,356		Colvin et al.	07-06-1993	
REZ	D6	6,057,266		Colvin et al.	05-02-2000	
REZ	D7	6,298,907	B1	Colvin et al.	10-09-2001	
REZ	D8	6,373,058	B1	McKinney et al.	04-16-2002	
REZ	D9	6,418,832	B1	Colvin	07-16-2002	

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REZ	D10	WO	94/02257		Buckley	02-03-1994		

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REZ	D11	Bayes, S. A., "A Nonventing Cooling System for Space Environment Extravehicular Activity, Using Radiation and Regenerable Thermal Storage", SAE Technical Paper Series, 18 <sup>th</sup> Intersociety Conf. on Environmental Systems (July 11-13, 1988).	
REZ	D12	BMDO, "Enhanced Heat Transfer and Storage Materials for Strategic Defense Systems", Triangle Res. & Dev., Small Business Innovative Research, Award date: 1986 (Abstract).	
REZ	D13	Bue et al., "Advanced Suit Design Analyzer Computer Program", 22 <sup>nd</sup> International Conference on Environmental Systems, (July 13-16, 1992).	
REZ	D14	Case for Mars V, American Astronautical Society, Vol. 97, Science and Technology Series, Conf., pp. 509-510 (May 26-29, 1993).	
REZ	D15	Colvin et al., "Enhanced Heat Transport in Environmental Systems Using Microencapsulated Phase Change Materials", 22 <sup>nd</sup> International Conference on Environmental Systems, (July 13-16, 1992).	
REZ	D16	Colvin et al., "Thermal Management of Electronic Systems Using Diamond Heat Spreaders and Microencapsulated PCM Coolants", 1997 National Heat Transfer Conf. (August, 1997).	
REZ	D17	DOD-AF, "Spacecraft Heat Rejection Methods: Active and Passive Heat Transfer for Electronic Systems", Triangle Res. & Dev., Small Business Innovative Research, Award date: 1985-1986 (Abstract).	
REZ	D18	DOD-AF, "Enhanced Thermal Energy Storage in Clothing With Impregnated PCM", Triangle Res. & Dev., Small Business Innovative Research, Award date: 1987 (Abstract).	
REZ	D19	DOD-NAVY, "Electrorheological Damper Using MicroPCM Fluid", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1991 (Abstract).	

Examiner Signature	Date Considered	9/13/04
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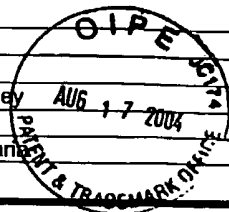
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Date Submitted: August 17, 2004 (use as many sheets as necessary)		First Named Inventor	Theresa M. Buckley
		Group Art Unit	1773
Sheet 2 Of 3		Examiner Name	Ramsey E. Zachary
		Attorney Docket Number	046577-0103



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REZ	D20	DOD-NAVY, "Enhanced Thermal Energy Storage in Clothing with", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1992 (Abstract).	
REZ	D21	DOD-NAVY, "Passive PCM Microclimate Body Undergarment Thermal Management System", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1992 (Abstract).	
REZ	D22	DOD-NAVY, "Using Diamond Film Heat Spreaders and Microencapsulated Phase Change Materials for Electronics Cooling", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1995 (Abstract).	
REZ	D23	DOD-NAVY, "Lightweight, Regenerative MicroPCM Portable Environmental Control Systems (PECS) Garments", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1996 (Abstract).	
REZ	D24	DOD-NAVY, "Lightweight, Regenerative MicroPCM Portable Environmental Control Systems (PECS) Garments", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1998 (Abstract).	
REZ	D25	Kuznetz, L. H., "Space Suit and Life Support Systems for the Exploration of Mars", AIAA Space Proj. & Technol. Conf. 90-3732 (September, 1990).	
REZ	D26	Kuznetz, L. H., "Space Suit and Life Support Systems for the Exploration of Mars", Journal of The British Interplanetary Society, Vol. 45, pp. 215-224 (1992).	
REZ	D27	Mulligan, J. C., et al., "Use of Two-Component Fluids of Microencapsulated Phase-Change Materials for Heat Transfer in Spacecraft Thermal Systems", 6 <sup>th</sup> AIAA/ASME Joint Thermophysics and Heat Transfer Conference (June 20-23, 1994).	
REZ	D28	NASA Tech Brief, "Design Concept/Algorithm for Integrated Passive Body Cooling Garment Using A Phase Change Material (PCM) Slurry", vol. 15, issue 7, p. 44 (July 1991).	
REZ	D29	NASA, "Space Suit Thermal Control Using Non-Toxic Microencapsulated Two-Phase PCM Fluid", Triangle Res. & Dev., Small Business Innovative Research, Award date: 1988 (Abstract).	
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REZ	D31	NASA Tech Briefs, "Garment Would Provide Variable Cooling", (1991)	
REZ	D32	NASA Tech Briefs, "Phase-Change Heat-Storage Module", p. 103, (April 1989).	
REZ	D33	NASA Tech Briefs, "Microencapsulated Phase-Change Materials for Storage of Heat", Machinery, Books and Report, (July 1989)	
REZ	D34	NSF, "Spinning Performance of Melt-Spun Fibers Containing Microencapsulated Phase Change Material", Triangle Res. & Dev., Small Business Innovative Res., Award date: 2000 (Abstract).	
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REZ	D36	NSF, "Two-Component Cutting/Coolant Fluids for High-Speed Machining", Triangle Res. & Dev., Small Business Innovative Research, Award date: 1990 (Abstract).	
REZ	D37	NSF, "Two-Component Cutting/Coolant Fluids for High-Speed Machining", Triangle Res. & Dev., Small Business Innovative Research, Award date: 1992 (Abstract).	
REZ	D38	NSF, "Materials for Extending Endurance and Productivity of Underwater Divers in Cold Waters", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1995 (Abstract).	
REZ	D39	NSF, "Regulation of Moisture and Thermal Microenvironments to Improve Mycoherbicides", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1997 (Abstract) Phase I.	
REZ	D40	NSF, "Regulation of Moisture and Thermal Microenvironments to Improve Mycoherbicides", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1997 (Abstract) Phase II.	
REZ	D41	NSF, "Investigation of Phase Change Materials Microcapsules for High Temperature Applications", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1996.	

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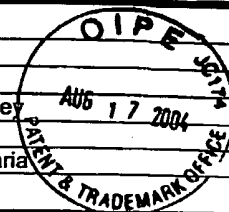
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Date Submitted: August 17, 2004 (use as many sheets as necessary)		First Named Inventor	Theresa M. Buckley
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Sheet 3 Of 3		Examiner Name	Ramsey E. Zacharia
		Attorney Docket Number	046577-0103



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RET	D42	NSF, "Stabilization of Microenvironmental Temperatures on Plant Surfaces with Microencapsulated Phase Change Materials to Prevent Frost/Freeze Damage", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1998.	
RET	D43	Quagliaroli, J., et al., "In-House Testing of Thermal Material for Space Application", Amer. Inst. Of Aeronautics & Astronautics (2001) AIAA Paper No. 2001-1450.	
RET	D44	SOCOM, "Hybrid Lightweight Protective Body Armor with Impact Absorption and Passive Thermal Management", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1998 (Abstract).	
RET	D45	Trevino, L. A., et al., "Advanced Space Suit Insulation Feasibility Study", SAE Technical Paper Series, 30 <sup>th</sup> Intl. Conf. on Environmental Systems (July 10-13, 2000).	
RET	D46	USDA, "Phyllosphere Microclimate with Micropcms to Improve Mycoherbicides", Triangle Res. & Dev., Small Business Innovative Res., Award date: 1998	
RET	D47	USAF Small Business Innovation Research Program, "Microencapsulated Phase Change Materials for Enhanced Heat Transport and Storage in Electronic Systems", res. Performed by Dr. David P. Colvin	
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